

ABSTRACT

An apparatus for pulling the single crystal has a radiation shield. The apparatus can improve the ratio of single crystallization, even if the radiation shield is made of graphite base material and covered with silicon carbide. The apparatus can be manufactured by low cost and can improve heat insulating characteristic. The apparatus does not generate cracks by heat stress even in a large size. In the apparatus for Czochralski method having the radiation shield, the radiation shield is formed of graphite base material covered with silicon carbide. An inside corner of a curvature formed on the base material is formed of a curved surface.